

## CLAIMS

What is claimed is:

1. A method of selecting an archwire for a patient comprising:  
obtaining a representation of the patient's inner arch curve (PIAC);  
selecting an archwire shape based at least partially on the PIAC representation; and  
selecting an archwire to be used based on the selected archwire shape.
2. The method of claim 1 wherein selecting an archwire shape comprises providing a translucent or transparent sheet bearing a representation of an archwire, and attempting to superimpose the archwire representation on the PIAC representation.
3. The method of claim 1 wherein obtaining the PIAC representation comprises obtaining an image of the patient's teeth and arch, and selecting an archwire shape comprises viewing at least a portion of the image through the translucent or transparent sheet.
4. The method of claim 1 wherein obtaining the PIAC representation comprises obtaining a study model of the patient's teeth and arch, and selecting an archwire shape comprises viewing at least a portion of the study model through the translucent or transparent sheet.
5. The method of claim 1 further comprising selecting an initial archwire size based at least partially on the PIAC representation, and wherein selecting an archwire comprises selecting an archwire to be used based on the selected archwire shape and selected initial archwire size.
6. The method of claim 5 further comprising selecting a final archwire size after considering something other than the PIAC representation, and wherein selecting an archwire comprises selecting an archwire to be used based on the selected archwire shape and selected final archwire size.

7. An archwire selection aid comprising a translucent or transparent sheet bearing one or more representations of archwires.
8. An automated system for selecting an archwire for a patient comprising:  
a patient internal arch curve recorder adapted to obtain a representation of the  
patient's internal arch curve;  
data on available archwires;  
a mechanism adapted to compare an obtained representation of a patient's internal  
arch curve with the data on available archwires and to identify an archwire  
based on any such comparison.
9. The system of claim 8 wherein the system further comprises data relating to the  
current position, orientation, shape and/or size of the patient's teeth.
10. The system of claim 8 wherein the system further comprises an input mechanism  
adapted to accept a treatment diagnosis.
11. The system of claim 10 wherein the mechanism adapted to compare an obtained  
representation of a patient's internal arch curve with data on available archwires is  
also adapted to utilize any input treatment diagnosis in identifying an archwire.
12. The system of claim 8 wherein the system comprises a communications mechanism  
adapted to communicate to an archwire supplier that the identified archwire is to be  
provided to a user of the system.
13. The method of claim 8 wherein the patient internal arch curve recorder comprises a  
means for obtaining an electronic representation of at least a portion of a study model  
or image.
14. The method of claim 13 wherein the patient internal arch curve recorder comprises a  
digital camera or scanner.

15. The method of claim 8 wherein the data on available archwires comprises data on archwires comprising one of at least three different shapes.
16. The method of claim 15 wherein the data on available archwires comprises data on at least two archwires having the same shape wherein one of the archwires is adapted for use in a non-extraction treatment plan and another of the archwires is adapted for use in an extraction treatment plan.
17. An automated system for selecting and ordering an archwire for a patient comprising:  
means for selecting an archwire from a plurality of available archwires; and  
means for ordering the selected archwire from an archwire supplier; wherein  
the selection of an archwire is based, at least in part, on all of the following factors:  
the patient's jawbone structure;  
a dentists preferred treatment option; and  
the sizes and shapes of available archwires.